

ted with the usual solutions of sulphate of copper and sulphuric acid. A highly-polished steel plate was placed in a porcelain soup-plate, and a filtered solution of acetate of lead poured upon it. A piece of card-board, out of which the required figures had been previously cut with a sharp knife, was then placed upon a steel-plate. Over the card, and resting on it, there was fixed a ring of wood, a quarter of an inch thick, and the inner circumference of which was of the same size as the figure. A convex copper-plate was made so that its outer edge might rest on the inner part of the wooden ring; and its centre placed near, but not in actual contact with the card-board. Connexion was then made by the positive electrode of the battery with the steel-plate; the negative being placed in the centre of the copper convex plate. The figure was generally obtained in from 15 to 35 seconds. If a concave, instead of a convex plate be used, the same colours are obtained as in the former experiment, but in an inverse order.

“Geographical position of the principal points of the Triangulations of the Californias and of the Mexican coasts of the Pacific, with the heights of the principal points of that part of the Cordilleras.” By the Comte Vincent Piccolomini; in a letter addressed to Sir John F. W. Herschel, Bart., V.P.R.S. Communicated by Sir John Herschel.

Hauteurs des principaux points des Cordilleres, des côtes de l'Océan Pacifique du Mexique, et de la haute et basse Californie.

	Élévation en pieds français sur le ni- veau de la mer pacifique.		Élévation en pieds français sur le ni- veau de la mer pacifique.
Volcano di Orizaba	18728	Tasco	5971
Volcano di Popocatepetl..	17812	Temascaltepec	5760
Volcano di Tztlacihuatl...	15698	Guernavaia.....	5447
Rio frio	10948	Tchuacan	5398
Real del Monte	10570	Xantetelco	5030
El oro	8995	Cuicatlan	5028
Tlalpuhahua	8435	Oajaca	5024
Ameia	8247	Cuantla	4587
Naupalucan	8194	Talapa	4542
Las Vigas	7918	Acayucan	4485
Perote.....	7911	Coscomatepec	4451
Ozumba (Etat de Puebla)	7874	Huatusco	4424
Tepeyahualco.....	7702	Talostoc	4421
Ozumba (Etat de Mexico)	7620	Lautepec.....	4019
S. Rosa	7565	Orizaba (ville)	3998
Lagunas de Chalco	7510	Real de Christo	3851
Mexico	7450	Huaitla	3336
Tepeaca	7444	Cordova	2769
Huehuetaca	7121	Dominguillo	2274
Puebla	7078	Villalé.....	1578
Tula	6613	Petapa	617
Tlacotepec	6479	Tehuantepec (Océan Paci- fique.).....	132
Zacualpan	6181		

Position géographique des principaux points de la Triangulation des Californies et des côtes de l'Océan Pacifique du Mexique par le Comte Vincent Piccolomini.

	Latitude.	Longitude calculée de Greenwich.
Volianos de las Virgenes.....	29 91 14 ³⁵	121 46 30 ⁸²
Cap S. Lucas (Basse californie)	23 08 35 ²⁷	109 82 15 ⁰⁴
Monterrey (Haute californie)	36 58 17 ⁸⁵	121 46 53 ⁰⁹
Guaymas (Département de Sonora)	27 55 00 ⁴⁸	111 45 37 ⁴²
Matamoros (Texas)	25 59 22 ⁰⁷	97 54 18 ⁷⁶
Id. Id. Barra grande de S. Yayo	26 30 27 ¹⁵
Id. Id. Barra del Rio	25 53 03 ¹¹
Bejar (Texas)	29 74 88 ⁹³	98 85 17 ⁷⁴
Mine d'or de S. Yago de los Caballeros	25 13 77 ⁰⁴	106 67 15 ⁸⁷
Yulians de Tuxtla	18 47 25 ⁹¹	94 07 43 ¹¹
Namampateptl (Province de Vera Cruz)	19 21 48 ⁷¹	...
Bahia de San Francisco (au cap los Reyex dans la haute Californie)	37 59 17 ²⁹	122 37 13 ⁰⁴
Port de San Blas, tour de l'église (guadalajara) ..	21 67 05 ⁵⁴	105 43 17 ²⁸
Volcanos de Colima.....	19 03 45 ¹⁷	103 21 47 ⁰⁴

N.B. L'instrument employé pour déterminer les Longitudes était un Chronomètre de O. H. Bestor ; pour la mesure des triangles de premier ordre je me servis d'un théodolite de dix pouces de diamètre sortant des ateliers de Munchi, pourvu de quatre verniers et donnant 10". Les élévations du sol furent déterminées par des observations barométriques faites avec soin, souvent répétées et déduites par le moyen d'observations correspondants ; elles furent calculées d'après la méthode d'Oltmanns et vérifiées par celles du Baron Zach. —V.P.

" Report on the co-operation of the Russian and German observers, in a system of simultaneous Magnetical Observations." By the Rev. H. Lloyd, F.R.S., in a letter addressed to Sir John F. W. Herschel, Bart., V.P.R.S. Communicated by Sir John Herschel.

" On Magnetical Observations in Germany, Norway, and Russia." By Major Sabine, R.A., V.P.R.S., in a letter to Baron von Humboldt, For. Mem. R.S., dated Oct. 24th, 1839.

These letters relate to communications which Professor Lloyd and Major Sabine have had, conformably to a resolution of the Council of the Royal Society, with the scientific authorities at Göttingen, Berlin, and St. Petersburg, respecting the organization of a simultaneous system of magnetical observations. It appears, from these letters, that the system proposed by the Royal Society is viewed with general interest and approbation ; and nineteen stations are enumerated at which there is reason to expect that magnetical observatories, acting in concert, on that system, will be established.